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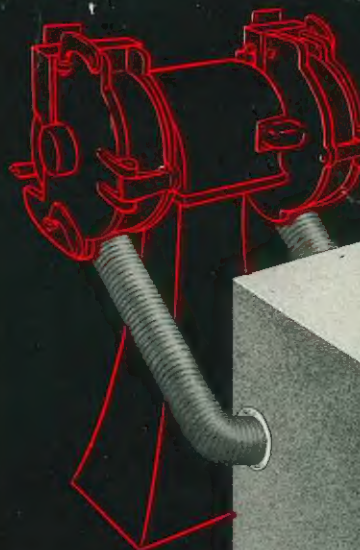
U. S. GOVERNMENT PRINTING OFFICE

# TORIT

*dust  
collectors*

for

grinding dust  
buffing and polishing lint  
leather dust  
sawdust, chips and shavings  
rubber dust  
pharmaceutical powders  
carbon dust  
precious metal dust  
cement, grain, and  
many other dusts  
fumes and gases from welding and  
other processes



CABINET  
CLOTH FILTER TYPES



CYCLONE  
SEPARATOR TYPES

catalog  
No. 39

**TORIT  
MANUFACTURING  
COMPANY**

*St. Paul 2,  
Minnesota*



# why dust collectors are essential to industry

Dust shortens machine life. TORIT traps dust at its point of origin to keep bedways, saddles, slides and bearing surfaces clean. Machines last longer, and hold close tolerances better with less maintenance. Dust can also damage fine surfaces or other parts of your products. TORIT keeps your product free from this harmful dust. Clean air lets employees work more efficiently. Work areas are easier to keep clean, and stay better looking. TORIT dust collectors pay for themselves in these ways alone. They also salvage diamond dust, gold grindings, and other valuable dusts.

# how Torit self-contained dust collectors save you money

Different machines need different kinds of dust collectors. When each machine or group of machines has its own TORIT unit, the dust collector can be matched to the machine's needs. Sometimes only a few machines will be in operation in the shop at one time. Under these conditions, only the dust collectors for those machines need to be operating. This saves power. If machines are moved to a new location, the dust collector can be moved with them. When the plant expands, new dust collectors can be added as they are needed. You are not limited to the capacity of a central system, and your initial investment is low. When individual TORIT dust collectors are used, lint from buffing operations is kept separate from grinding dust. This eliminates possible fire hazards from sparks. Servicing of individual dust collectors does not interrupt the operation of other machines. You save heat too, because filtered air may be exhausted indoors.

# who uses Torit dust collectors?

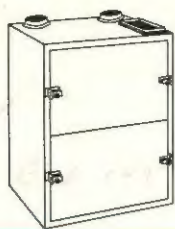
More than 35,000 TORIT dust collectors are now in use. Their uses range from small home workshops to the largest manufacturing plants in the country. TORIT units are working daily to add to the nation's industrial efficiency, and to employee comfort and health.

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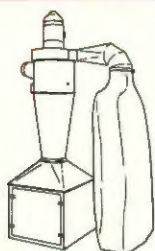


## what are the basic **TORIT** types?



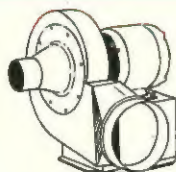
### for gritty dust: cabinet cloth filter types

The most widely-used TORIT units. The air is filtered inside the steel cabinet and then passes back into the room. This way, conditioned air is not lost outside the building. The filtered air can easily be exhausted outside the building if local regulations require it.



### for bulky or sticky dust: cyclone separator types

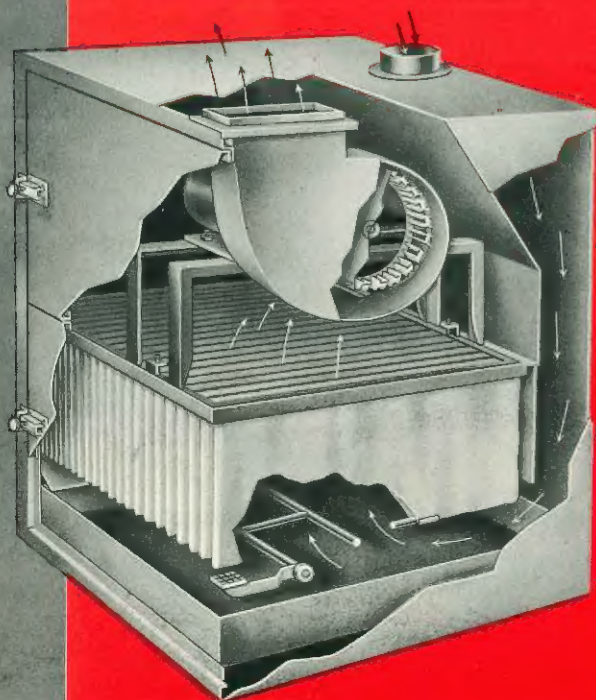
Used where filter-clogging dust or large quantities of dust are to be trapped. Centrifugal force precipitates all but the very finest dust particles. These may be vented outside the building, or trapped in an after-filter. When an after-filter is used, the clean air is recirculated indoors to save heat.



### for fumes and gases: exhaustors and blowers

Keeps work areas free from harmful or unpleasant fumes, such as welding and soldering fumes or heat treating gases.

## CABINET CLOTH FILTER TYPES



Compact, self-contained units for use with all types of grinders, sanders, metal saws, etc. Capacity of standard models ranges from 160 to 2000 cubic feet per minute. Larger units can be built on special order, or several units can be used together. An entire plant can be equipped with TORIT cabinet type collectors. They are also ideal for expansion in plants where the present central dust collector system is already operating at full capacity.

### how Torit cabinet cloth filter types operate

Dust-laden air is drawn into the cabinet from hoods surrounding grinding wheels or other dust sources. Heavy particles fall immediately into the dust tray under the filters. Finer dust particles are trapped on the outer, under side of the filters. Most of these fall into the dust tray when the machine is stopped. The rest of them can be shaken loose by the handle located outside the cabinet. Brushing the filters at regular intervals keeps the unit operating at top efficiency. Filtered air is drawn past the motor, which keeps it cool. Air may be exhausted directly into the room or vented outside building if local codes require it.



## operating features of TORIT CABINET CLOTH FILTER TYPES

**COMPACT**—Torit Dust Collectors are self-contained portable units. Motor, fan, fan housing and filters are mounted in compact steel cabinets. Careful engineering gives maximum filter area in the smallest possible space.

**EFFICIENT**—Squirrel-cage blowers are mounted directly on the motor shaft for low power consumption. Spark-resistant cloth filters clean the air with minimum airflow resistance for maximum air volume and efficiency.

**FLEXIBLE**—Torit units may be located under work benches, along walls, or directly behind machines for best use of space. Inlet locations may be chosen for most direct piping to machine, or changed for use with new machines.

**EASY TO INSTALL**—Standard sheet metal pipe and fittings available from TORIT make installation easy. Change of location is simplified by unit construction. No structural alterations are necessary when installing TORIT units.

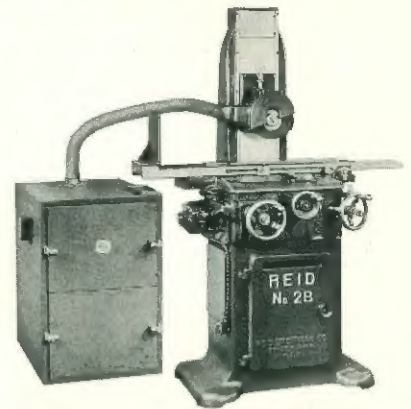
**EASY TO CLEAN**—Dust that collects on the filters can be removed by shaking them with the lever located outside the cabinet. A special brush is provided for more thorough cleaning of the filters, once or twice a month.

**EASY TO OPERATE**—Each TORIT dust collector can be wired through the starter of the machine that it serves. The collector then automatically starts and stops with the machine. This saves power.

**QUIET**—Internal mounting of motor and blower reduces noise level of TORIT dust collectors. Careful design of blowers, filters and air passages keeps turbulence and noise level at a minimum. Low-speed models are exceptionally quiet.

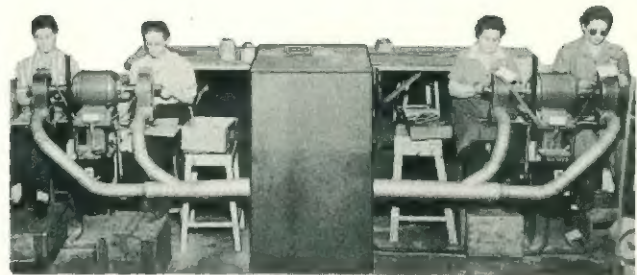


**Model No. 54** For use with surface grinders with wheel sizes up to 7" x 1". Also for use with tool and cutter grinders and lathes involving small concentrations of dust.



**Model No. 66** For uses similar to the model 54 but where stronger suction is needed. Develops up to 50% more static pressure than model 54.

## STANDARD HIGH SPEED UNITS



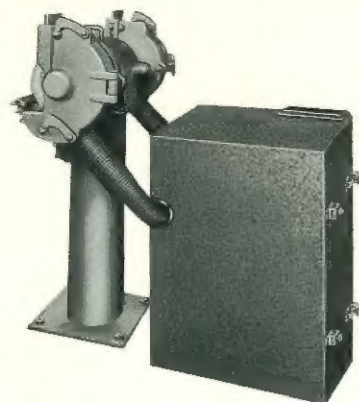
**Model No. 81** For double-end pedestal grinders up to 18" diameter, or single grinders up to 30" diameter. May be used with two smaller pedestal grinders or surface grinders if they are located close together. When used with double-end grinders larger than 18" diameter, only one wheel at a time should be used.

**Model No. 83** For applications similar to models 64 and 75, but where unusually high static pressure is required.

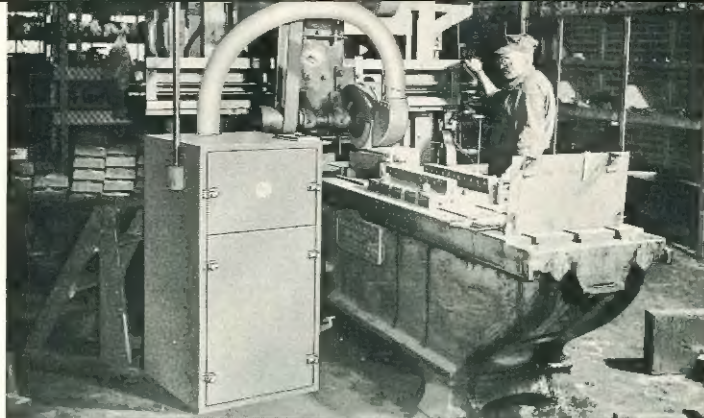
## LOW SPEED UNITS

**NOTE:** These units are intended for low-velocity uses, where quiet operation and high air volume are important. Best for use on light-duty work with intermittent operation. Inlet openings are larger than on the high-speed models due to lower air velocity.



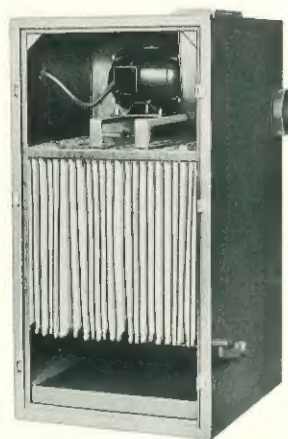


**Model No. 64** The most popular, versatile TORIT unit. Suitable for double-end pedestal grinders up to 10" diameter. May be used with single spindle disc grinders or sanders up to 18" diameter, or for other grinders, lathes and machine tools that produce average concentrations of dust.



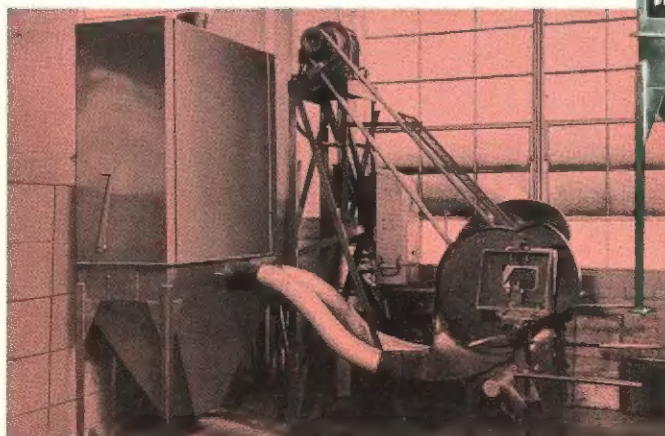
**Model No. 75** For uses similar to model 64 where greater air volume, velocity, or filter area is required. Moves 5 cubic feet of air per minute through each square foot of filter. This improves its efficiency, requires less frequent cleaning, and meets local ordinances which require a low ratio of air volume to filter area. On applications where a model 64 is ideal for average work, this model 75 is recommended for heavy-duty jobs involving the same machine.

**furnished with single or three-phase 3450 rpm motors**



**Model No. 84** Recommended for jobs similar to model 81, but where greater air volume, velocity and static air pressure is needed for heavy-duty work.

**Model No. 122** Designed to handle heavy-duty continuous grinding, or other high dust-volume sources. Ideal for a double-end pedestal grinder in the 19" to 24" range where heavy-duty snag grinding is done. Dust storage capacity is 10 cubic feet. Filter area is 300 square feet. Air-flow-to-filter-area ratio is low—5 cubic feet per minute per square foot of filter.



**A TORIT No. 122**  
Dust Collector connected to a double-end disc grinder with two 26-inch wheels used continuously for heavy-duty grinding on quite large castings.

**furnished with 1750 rpm motors**

**Model No. 52** For intermittent, light-duty work where quiet operation is important. Cabinet is the same as high-speed model 54, and handles about the same air volume.

**Model No. 62** Used where greater air volume is required, but at a low static pressure. Cabinet is same as high-speed model 64, and handles about the same air volume.

**Model No. 80** The largest low-speed cabinet model, where low air velocity and high air volume is required. Cabinet is the same as high-speed model 81, and handles about the same air volume.

### *special models and equipment*

We can develop special models to meet your special needs. Explosion-proof motors, greater dust capacities, or special mountings are some of the modifications commonly made.



## TORIT CABINET CLOTH FILTER TYPES



All cabinets are made of steel, and finished in durable gray enamel. Filters, motor and blowers are easily reached through removable doors. TORIT collectors operate smoothly and are of air-tight construction. One or more inlets can be furnished as needed. Motor and blower mounted in air stream for cool operation. Fine-woven cotton filters are chemically treated for spark resistance and are sealed against leakage. Manual starter with overload protection. Foot pedal or handle on side of cabinet for cleaning filters.

### *25 cycle belt-driven units*

V-Belt drive maintains 3450 rpm fan speed for similar operating characteristics to high-speed 60 cycle models. Motors are 25 cycle, 220/440 volt, 3 phase, and are mounted on top of the cabinets. Available in Models 54-A, 64-A, and 81-A.

### *specifications*

FILTERS		MOTOR		FAN	CABINET			SHIPPING		
Unit No.	Area, Sq. Ft.	H.p.	R.p.m.	Size In.	Over-all Dimensions—Inches			Outlet Area—Inches	Dust Pan—Cu. In.	Weight, Pounds
					Wide	Deep	High			
52	30	¼	1725†	7-11/16 x 3	22	19	27	4 x 7	675	160
54	30	½	3450†	7 x 1	22	19	27	2¼ x 7	675	160
54A	30	½	1425*	7 x 1	24	19	36	2¼ x 7	675	225
62	60	½	1725†	9-3/16 x 3	22	24	33	4½ x 9	750	270
64	60	¾	3450†	7-11/16 x 1½	22	24	33	3½ x 7	750	270
64A	60	¾	1425*	7-11/16 x 1½	24	24	44	3½ x 7	750	350
66	60	½	3450†	8½ x 1	22	24	33	2½ x 8	750	270
75	120	1	3450†	7-11/16 x 2½	22	25	44	3½ x 7¾	780	350
80	150	1	1725†	9-15/16 x 5	28	28	49	6¼ x 11	1300	450
81	150	1½	3450†	7-11/16 x 3½	28	28	49	4½ x 7¾	1300	475
81A	150	2	1425*	7-11/16 x 3½	30	28	62	4½ x 7¾	1300	550
83	150	2	3450†	9-3/16 x 1½	28	28	49	2½ x 9½	1300	510
84	150	3	3450†	9-3/16 x 2	28	28	49	4 x 9½	1300	510
122	300	3	3450†	9-3/16 x 2	62¼	26	115	10 dia.	17280	1130



# PERFORMANCE

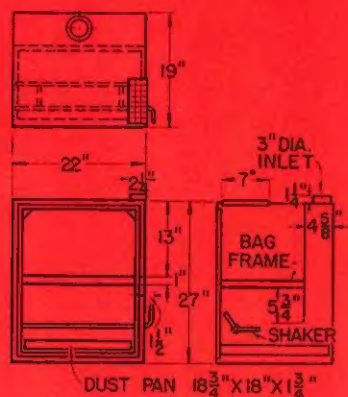
One Inlet Operating  
Inlet Tests—

Two Inlets Operating  
EACH Inlet Tests—

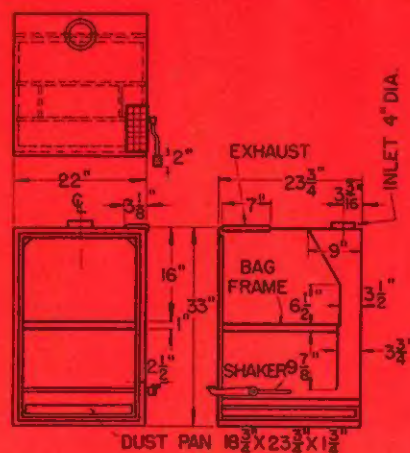
## INLETS

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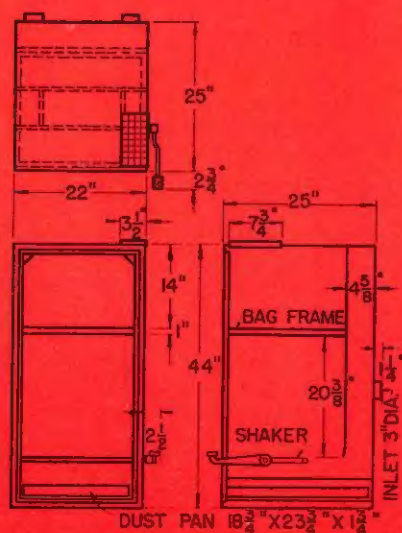
Unit No.	Inlet Sizes in.	C.f.m.	Static Press., inches (water)	Air Speed, f.p.m.	Inlet Sizes in.	C.f.m.	Static Press., inches (water)	Air Speed, f.p.m.	No.	Dia. in.	Location	
											Standard	Optional
52	4	250	1	3000	4	160	½	2000	2	4	top, 14" apart	either side at rear; back
54-54A	3	240	2¾	4800	—	—	—	—	1	3	top, rear, center	back; either side at rear
62	—	—	—	—	4	250	1	3000	2	4	top, rear, 16" apart	either side at rear; back
62	6	500	1	3000	—	—	—	—	1	6	top or rear	—
64-64A	3	320	4	6500	3	250	3	5100	2	3	top, rear, 16" apart	both on back; one on each side at rear
64-64A	4	500	3½	5700	—	—	—	—	1	4	—	on top, back, or either side
66	3	370	4½	7500	—	—	—	—	1	3	top, rear, center	either side at rear; anywhere on back
75	3	350	4¾	7600	3	300	3¾	6600	2	3	back 16" apart 20" up	either side at rear; top at rear; anywhere on back
75	4	500	3¾	5900	—	—	—	—	1	4	top, rear, center	back, either side at rear
80	6	650	1½	3500	6	500	1	3000	2	6	1 each side rear; 2 top rear or back	specify number, size and location of inlets
80	—	—	—	—	4	300	1½	3500	2	4	1 each side rear; 2 top, rear or back	specify number, size and location of inlets
81-81A	4	580	4½	6500	4	465	3	5300	2	4	back 22" apart 20" up	either side at rear; top at rear; anywhere on back
81-81A	6	1000	3	5000	—	—	—	—	1	6	—	—
83	—	—	—	—	3	385	5¾	7800	2	3	—	specify number, size and location of inlets
83	4	700	5¾	8000	—	—	—	—	1	4	—	—
84	4	650	5¾	7500	4	525	4¾	6000	2	4	back 22" apart 20" up	either side at rear; top at rear; anywhere on back
84	6	1100	4¾	6000	—	—	—	—	1	6	—	—
122	7	1500	3¾	5500	—	—	—	—	1	7	back, center 44" up	either side, center, 44" up



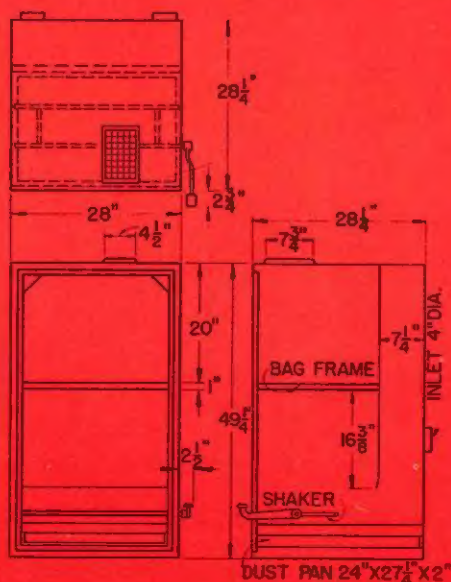
ALL SERIES 50 MODELS



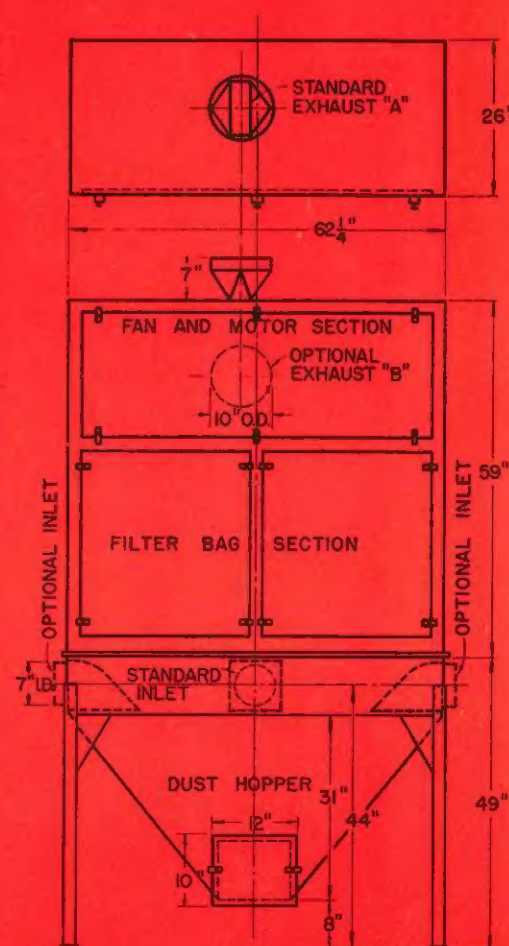
ALL SERIES 60 MODELS



ALL SERIES 70 MODELS



ALL SERIES 80 MODELS



MODEL NO. 122



Compact, self-contained units for use with buffing wheels, or where large volumes of dust are created, as in woodworking. These units will handle from 260 to 5000 cubic feet per minute. Two or more units can be used together for greater capacities. Ideal for expansion in plants where present central system is already operating at full capacity. Especially effective when buffing compounds are used, since dust is precipitated by centrifugal force, and there are no filters to clog. Air may be exhausted outside building or passed through after-filters and recirculated indoors, thus saving heat.

# TORIT cyclone separator types



## FM SERIES

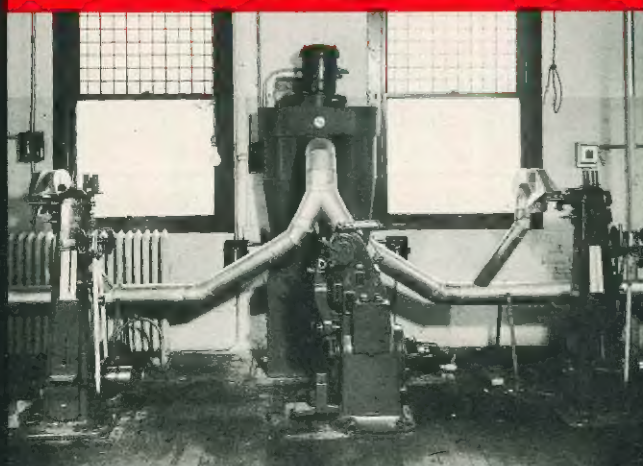
(Models No. 12FM, 13FM, 18FM, 19FM and 219FM)

Outdoor exhausting types. Where undesirable fumes or obnoxious odors are present, or where local regulations require exhausting the air outside. Since as little as 5% of the dust remains in the exhausted air, this equipment is satisfactory in almost all localities.



## how Torit cyclone separator types operate

Dust-laden air is drawn into top of cone from hoods surrounding dust source. Spiral baffles direct air into a whirlwind motion. Dust particles are precipitated out of the air stream by centrifugal force, and settle down through the cone to the dust reservoir below. As much as 95% of the dust is removed from the air in this way. The clean air is then drawn up through a squirrel-cage blower and exhausted outside the building or indoors through after-filters.





# OPERATING FEATURES OF TORIT CYCLONE SEPARATORS

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**efficient**—Up to 95% of the dust is precipitated by centrifugal action, without the use of filters. This unrestricted air flow and the use of formed baffles means low power consumption. Squirrel-cage blower is mounted directly on motor shaft, and is designed for smooth, powerful air flow.

**easy to clean**—The standard dust reservoir has a pull-out drawer to make emptying easy. After-filter bags can be removed easily for cleaning. This is needed only occasionally.

**easy to operate**—Each TORIT cyclone separator can be wired through the starter of the machine it serves. The separator then automatically starts and stops with the machine. This saves power.

**easy to install**—Self-contained units mount against the wall or near the dust source for simple installation. Inlet and outlet connections can be rotated for shortest possible pipe connections. Unit can be exhausted indoors through after-filters, or outdoors.

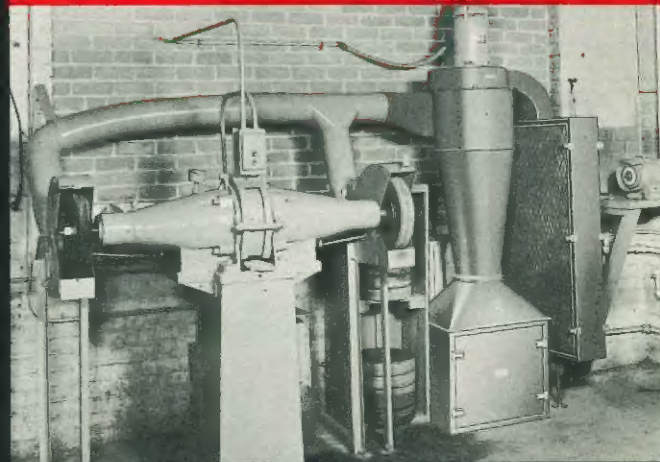
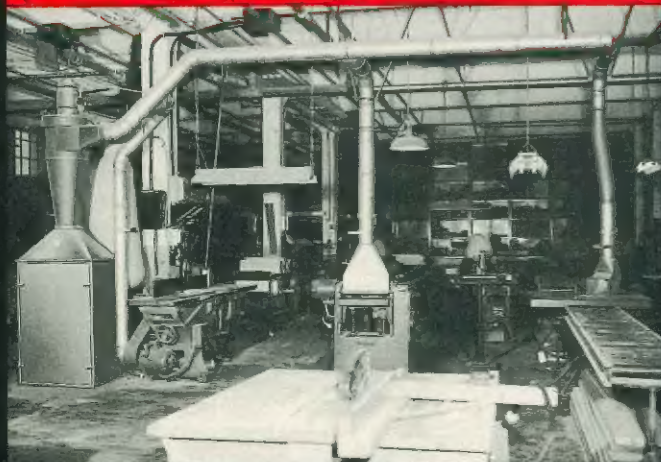


**FB SERIES**  
(Models No. 12FB, 13FB, 18FB, 19FB and 219FB)  
Recirculating types. Where heated or conditioned air is to be saved. Air is recirculated indoors after passing through an after-filter bag.



**FMA SERIES** (Models No. 12FMA, 13FMA, 18FMA, 19FMA and 219FMA)

Recirculating type. Disposable pads of glass wool are mounted on both sides of the after-filter frame. Recommended where nature of dust makes it desirable to throw away and replace filter. When filters become clogged, they may be thrown away, and replacements easily inserted.





# TORIT CYCLONE SEPARATOR MODELS



## construction features

All cyclone models are made of welded steel, and finished in durable gray enamel. End-mounted motor and blower is detachable for servicing or relocation of outlet duct. Cones may be rotated on base for proper inlet location. Dust reservoir has a pull-out drawer for easy cleaning. TORIT separators operate smoothly and are of air-tight construction. Twin units use a common dust reservoir. Separators have manual starters with over-load protection.

## STORAGE SPACE

(of Pullout Drawer in Square Bottom Reservoirs).

Model	Capacity	Length	Width	Height
<b>Standard sizes</b>				
12 & 13	2 cu. ft.	17"	15"	14"
18 & 19	4 cu. ft.	21"	23"	16"
219	4½ cu. ft.	28½"	20"	15½"
<b>Special Large Sizes*</b>				
Series 18 or 19†	8 cu. ft.	21"	23"	30"
Series 219*	16 cu. ft.	26½"	34½"	30"

\*Other sizes available upon request.

†Reservoir 24 x 24 x 42".

\*Reservoir 30 x 36 x 52" high.

## SPECIFICATIONS

Standard Sizes

Model No.	Motor		Inlet—one only		Air Speed, F.p.m.	Static Press., inches (water)	Ship. Weight, lbs.
	H.p.	R.p.m.	Diam., inches	C.f.m.			

### FM Units for outdoor exhaust

12 FM	½	3450	3	280	5700	4	245
13 FM	¾	3450	4	520	6050	3½	260
18 FM	1½	3450	5	725	5300	3½	410
19 FM	2	3450	6	1100	5650	2.7	440
19 FM	5	3450	8	2100	6000	3.0	635

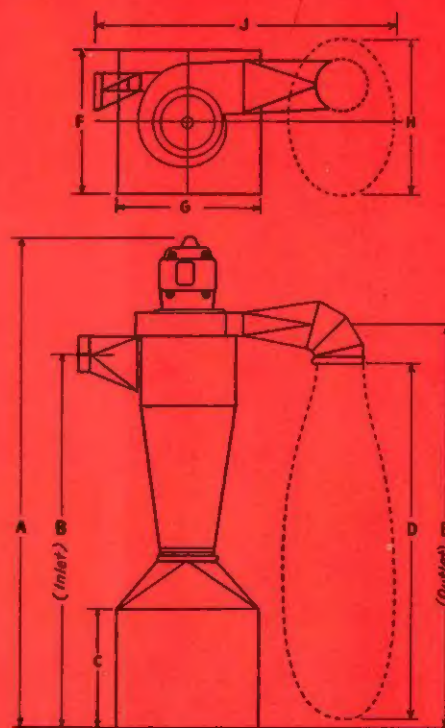
### FB and FMA Units for indoor recirculation

12	½	3450	3	260	5600	3.2	360
13	¾	3450	4	475	5500	3.0	380
18	1½	3450	5	700	5150	3.0	480
19	2	3450	6	1000	5500	2.5	510
219	5	3450	8	2000	5800	2.8	700

### Fan Sizes

Model No.	Size, inches	Model No.	Size, inches
12	8¼ x 1	19	9-15/16 x 3
13 & 18	9½ x 1½	219	9-15/16 x 2

## DIMENSIONS IN INCHES



No.	A	B	C	D	E	F	G	H	J	Exhaust Outlet Dia.
12 & 13 FM	69½	52½	18	—	58½	18	18	—	—	6
12 & 13 FB	69½	52½	18	48	58½	18	18	20	48	6
18 & 19 FM	83½	64½	20	—	69	24	24	—	—	8
18 & 19 FB	83½	64½	20	60	69	24	24	24	54	8
219 FM	93¾	60	26	—	73½	24	30	—	—	10
219 FB	93¾	60	26	60	73½	24	30	24	57	10

FMA Units Approximately the same size as equivalent FB units.



## OPTIONAL EQUIPMENT for cabinet and cyclone models

- Explosion-proof or other non-standard motors.
- Hopper bases.

Can be furnished on all models. Hopper makes unit easy to empty into cart or other special container. Figure 1 shows a No. 84 collector with a hopper base and a 4" pipe nipple and cap. Legs can be any practical length.



FIG. 1

- Syntron-Mucon hopper valve. Easy emptying for collectors with hopper bases. 4", 6" and 8" size. Handles any grainy dust. Not recommended for sharp materials such as shavings from milling machines.



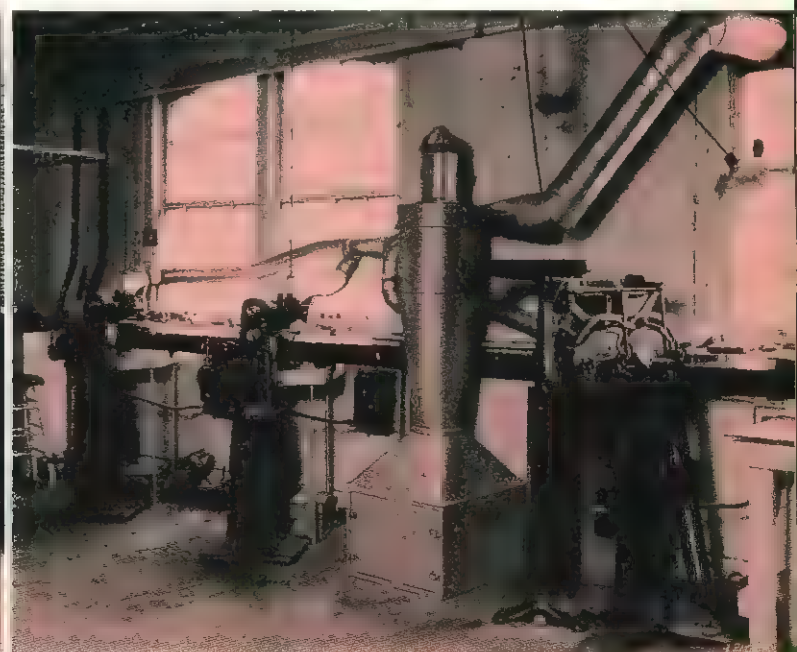
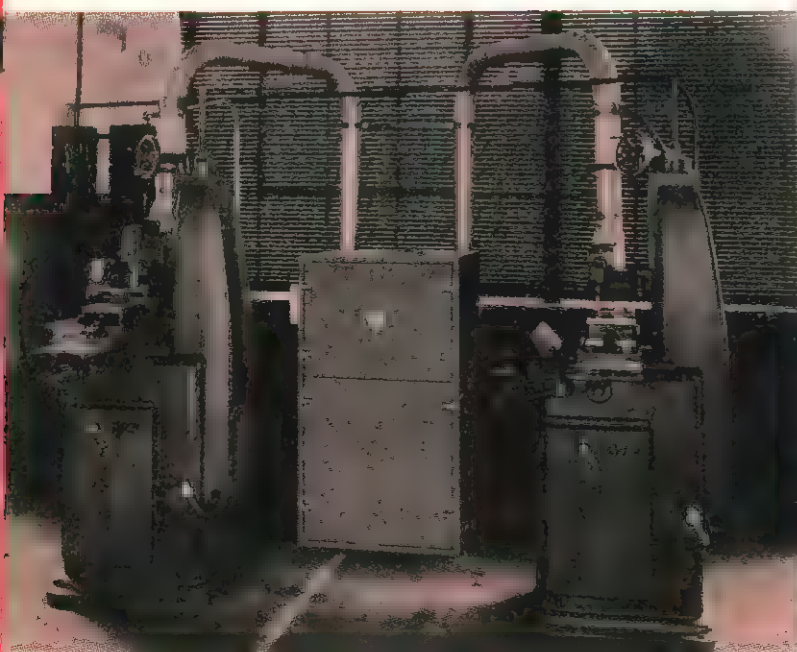
- Extra-large storage capacities.

MODEL No. 64—1 cu. ft. capacity dustpan. (Std. dustpan has 2/5 cu. ft. capacity). 3 1/2 cu. ft. capacity dust drawer mounted in No. 75 cabinet.

MODELS No. 80, 81, 83, 84—6 3/4 cu. ft. capacity dust drawer mounted in No. 602 cabinet. (Std. dustpan has 3/4 cu. ft. capacity).

MODELS No. 18 and 19 FM, 18 and 19 FB, 18 and 19 FMA. (Std. base has 4 cu. ft. capacity). 8 cu. ft. capacity with dust drawer. 13 cu. ft. capacity with dust drawer. Casters available on above dust drawers.

MODELS No. 219 FM, 219 FB, 219 FMA. (Std. base has 4 1/2 cu. ft. capacity). 15 cu. ft. capacity drawer on casters. 20 cu. ft. capacity hopper base with plate valve. 22 cu. ft. capacity hopper base with 8" flow valve. 32 cu. ft. capacity base, no drawer. 80 cu. ft. capacity hopper base with plate valve.





## SUCTION TUBE ASSEMBLIES

For piping to wheels on surface, tool and cutter grinders and machines that cannot be properly hooded

### Duck Covered Types

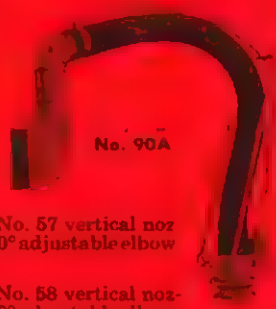
Adjusting nuts enable the operator to adjust the nozzle height vertically for accurate placing in the dust stream. Assemblies have hinged vertical and back rod dust nozzle supports, counterweight, swivel inlet collar for 360° rotation, 4 feet duck-covered hose



No. 90

**No. 90**—has No. 52 angular nozzle and 3" hose

**No. 92**—has No. 54 angular nozzle and 4" hose



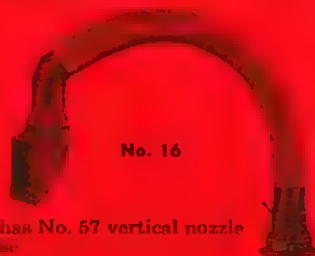
No. 90A

**No. 90A**—has No. 57 vertical nozzle, 3" hose and 90° adjustable elbow

**No. 92A**—has No. 58 vertical nozzle, 4" hose and 90° adjustable elbow

### Metal Hose Types

Less expensive than above assemblies. Flexible metal hose supports the dust nozzle. Adjusting nuts for height. Wire insert of hose—standard 90° adjustable elbow



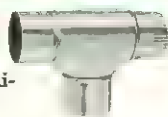
No. 16

**No. 16**—has No. 57 vertical nozzle and 2 1/2" hose

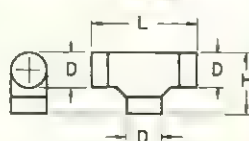
**No. 17**—has No. 58 vertical nozzle and 4" hose

## AIR FLOW TEES

Give better results than ordinary 90° tees.



D	H	L
3x3x3"	6"	11"
4x4x4"	7"	12"
5x5x5"	8"	11"
6x6x6"	9"	14"
8x8x8"	12"	16"



## STEEL PIPE

2, 3, 4, 5, 6, 8, 9, 10 and 12" diameters in 24" lengths. Galvanized.

# ACCESSORIES

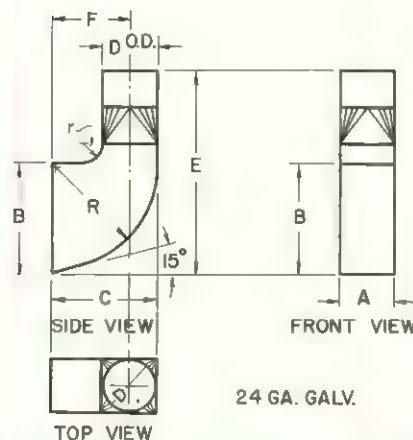
## VERTICAL DUST NOZZLES



Used on suction tube assemblies and grinders to catch dust at machine.

Dimensions in inches

No.	A	B	C	D	E	F	R	r
57	3	6	5 1/2	3	11	4 1/2	5 1/2	1
58	4	8	7	4	13 1/2	5	7	1 1/2
59	5	8	8	5	14	5 1/2	8	1 1/2
60	6	10	9	6	18	6	8	2



24 GA. GALV.

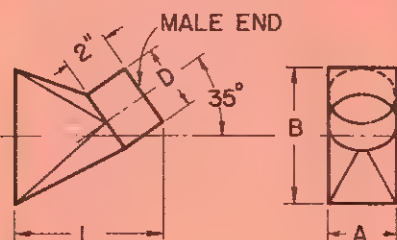
## ANGULAR DUST NOZZLES

Attach to surface grinders, tool grinders, etc., that have no means to catch dust. Arrangement for attaching nozzle to machine to be suctioned must be made.



Dimensions in inches

No.	Mouth		Pipe Connection	
	A	B	D	L
46	2	5	2	6 1/2
50	3	6	2	6 1/2
52	3	6	3	6 1/2
53	4	8	3	8
54	4	8	4	7 1/2
55	5	10	5	9 1/2
56	6	12	6	10-13/16



## HOSE

### Duck covered hose



**Duck Covered Hose**—More flexible than metal hose. Used where short radius bends or pipe line flexibility is needed. Wire insert prevents collapsing.

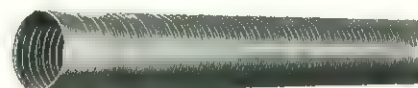
Dia.	L	Dia.	L	Dia.	L
2"	4'	2"	6'	2"	8'
3"	4'	3"	6'	3"	8'
4"	4'	4"	6'	4"	8'
6"	4'	6"	8'		

### Flexflyte—R—10

For use where additional abrasive resistance, low permeability is required. Superior to, but more costly than the duck covered hose shown above. Neoprene coated fibre glass, wire reinforced, with straight cuff each end. Available on special order—prices quoted on request.

Clamps for duck covered or Flexflyte hose: No. 13—2"; No. 15—3"; No. 17—4".

### Flexible metal hose



**Flexible Metal Hose**—Sometimes more suitable than standard metal pipe, 2, 3, 4, 5 or 6" inside diameter in any length up to 50'.

## LONG SWEEP ELBOWS

Give better results than standard 90° elbows



Dimensions in inches

D	45°			90°		
	R	H	L	R	H	L
3	6	10 1/2	3	6	10 1/2	3
4	8	13	4	8	13	4
5	10	16 1/2	4	10	16 1/2	4
6	12	19	4	12	19	4
7	14	23	5 1/4	14	23	5 1/4
8	16	26 1/2	6 1/4	16	26 1/2	6 1/4
9	18	29	7 1/4	18	29	7 1/4
10	20	31 1/2	8 1/4	20	31 1/2	8 1/4
12	24	37 1/2	10	24	37 1/2	10

## 90° ELBOWS

Adjustable. Crimped sections permit turning

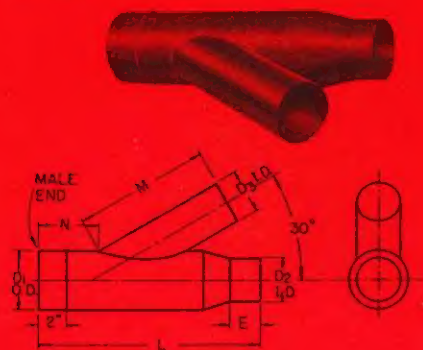
Dimensions in inches

D	n	L	n	D	n
3	4	6	4	4	8
4	4	7	4	5	8 1/2
5	5	8	5	6	9 1/2





## BRANCHES



Dimensions in inches

No.	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>	D <sub>6</sub>	D <sub>7</sub>	D <sub>8</sub>	D <sub>9</sub>	D <sub>10</sub>	L	E
12	3	2	2	2	1½	12½	6½	3½				
14	4	2	2	2	1½	13	7	3½				
16	4	3	3	3	1½	15½	9	4				
18	6	3	3	3	2	16	8	3½				
20	6	4	4	4	2	20	10	4				
30	7	5	5	5	2	22	12	4				
32	8	6	6	6	2	24	14½	4				

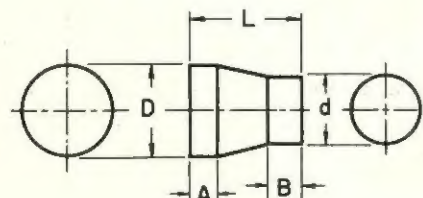
## Special Branches

Dimensions in inches

D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>	D <sub>6</sub>	D <sub>7</sub>	D <sub>8</sub>	D <sub>9</sub>	D <sub>10</sub>
3	2	3	6	4	6	8	6	8	
3	3	3	6	5	3	8	7	4	
4	4	3	6	6	3	8	8	3	
4	3	4	6	6	4	8	8	4	
4	4	4	6	6	6	8	8	5	
5	3	3	8	4	3	8	8	6	
5	5	5	8	4	6	8	8	8	
6	3	6	8	5	5	9	5	8	
6	4	3	8	5	8	9	8	4	
			8	6	4	9	9	3	
			8	6	5	10	8	8	

## PIPE REDUCERS

When wheel hood connection is different from dust collector inlet, one of these reducers may be used. Or reducer may sometimes be needed in the piping.



Dimensions in inches

No.	D	d	L	A	B
61	3 I.D.	1½ O.D.	5	1½	1½
62	3 O.D.	2 I.D.	4½	1½	1½
63	3 O.D.	2½ I.D.	4½	1½	1½
64	4 I.D.	3 O.D.	5	1½	1½
65	4 O.D.	3 I.D.	5	1½	1½
67	5 I.D.	4 O.D.	6½	2	2
68	5 O.D.	4 I.D.	6½	2	2
69	6 I.D.	4 O.D.	7	2	2
70	6 O.D.	4 I.D.	7	2	2
71	6 I.D.	5 O.D.	7½	2	2
72	6 I.D.	3 O.D.	8	2	2
72A	7 I.D.	6 O.D.	8	2	2
73	8 O.D.	6 I.D.	8	2	2

## WHEEL HOODS

Built according to wheel diameter to house wheel thoroughly. Exhaust outlet provides smooth flow of dust-laden air into piping to dust collector. Top of hood is thrown back to change wheels. Hollow base has door at bottom. Made of 16 gauge metal for 38" spindle height.



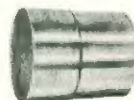
Dimensions in inches

For Wheel Diam.	Hood		
	Width	Exh. Conn. O.D.	No.
8	5	3	8A
10	5	4	10A
12	6	4	12A
14	6	4	14A
16	6	5	16A
18	7	6	18A

## ADAPTER SLEEVES

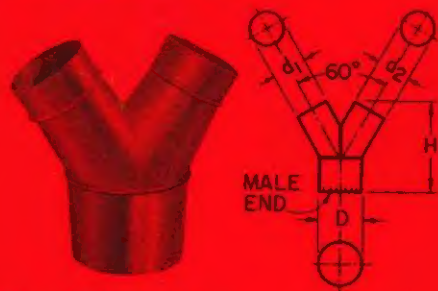
For connecting flexible metal hose to standard pipe and pipe fittings.

2" O.D. x 2½" I.D.  
3" O.D. x 3½" I.D.  
4" O.D. x 4½" I.D.  
5" O.D. x 5½" I.D.  
6" O.D. x 6½" I.D.



## REDUCING "Y"

For converting one large pipe into two small pipes. May be had in various combinations. Those generally used are:



Dimensions in inches

No.	D*	d <sub>1</sub> †	d <sub>2</sub> †	H
38	3	2	2	9
40	4	2	2	9
43	4	3	3	10½
44	5	3	3	12½
45	6	3	3	10½
47	6	4	4	11½
91	7	5	5	13½
93	8	6	6	14½

\*Outside diameter. †Inside diameter.

## NON-REDUCING "Y"

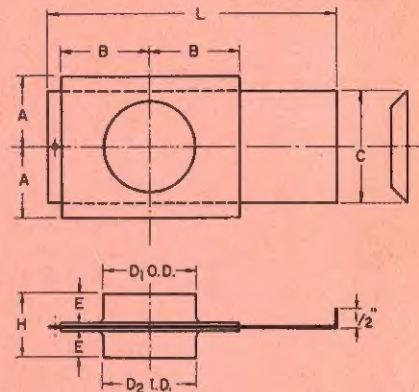
Used when a cut-out is employed to close one pipe while the other is open.

Dimensions in inches

No.	D	D <sub>1</sub>	D <sub>2</sub>	No.	D	D <sub>1</sub>	D <sub>2</sub>
72	2	2	2	77	5	5	5
74	3	3	3	78	6	6	6
76	4	4	4	79	8	8	8

## CUT-OUTS

For cutting suction in one branch pipe not being used temporarily. The closed cutout will increase suction in other branch pipe or pipes. Cut-out has flange on each side for two ends of pipe to be connected to it.



Dimensions in inches

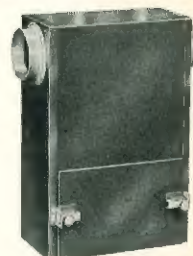
No.	Pipe Size		A	B	C	E	H	L
	D <sub>1</sub> *	D <sub>2</sub> †						
21	2	2	1-11/16	2-1/16	2-9/16	1	1½	6-11/16
22	3	3	2½	3	4	2	2½	9½
24	4	4	3	4	5½	2	2½	13
25	5	5	3½	3½	6-3/16	2	2½	12½
26	6	6	4	4	7-3/16	2	2½	14½
28	8	8	5½	5½	9½	1½	3½	20

\*Outside diameter. †Inside diameter.

## SPARK TRAP

Installed in piping between grinder and dust collector to eliminate fire hazard from sparks. Baffles inside knock down sparks. Has clean-out door.

No. 4 for 3 or 4" pipe.  
No. 6 for 5 or 6" pipe.  
Specify pipe size.



## FUME HOOD

Used in fume exhauster installations. See page 14.



Dimensions in inches

No.	D <sub>1</sub>	D <sub>2</sub>	H
115	3	6	4½
116	4	10	5
117	6	10	5½
118	6	12	7



## CASTERS

Permits one collector to serve 2 or more grinders. (Optional equipment on all collectors.)

## BALL JOINTS

Made of spun steel. Available in 3, 4, 5 or 6" sizes.



# TORIT

## DUST COLLECTOR SELECTION INFORMATION

### CABINET CLOTH FILTER TYPE APPLICATIONS

These units may be used in connection with either grinding wheels or buffing wheels—but separate collectors should be used for each type. Collecting dust from a grinding wheel with the same unit used to suction a rag buffing wheel is not recommended. This is due to the fact that sparks from grinding wheels are apt to ignite lint from rag buffing or polishing wheels accumulated in the dust collector and cause a fire. Neither are the cloth filter units recommended for use with rag wheels when buffing or polishing compound is used, inasmuch as sticky lint from such operations is apt to clog the filters and reduce suction to a point where it will be inadequate. Outside exhaust not used unless special conditions demand this.

**Standard High Speed Motors**—Most Torit Dust Collectors installed are those equipped with standard 3450 rpm motors, as they develop greater air velocity and static pressure which are advantageous on most grinding and buffing jobs, etc. Unless dual-voltage motors are essential, always specify single voltage motors.

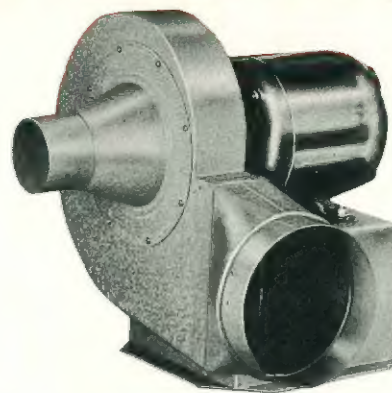
**Low Speed Motors**—Units equipped with 1725 rpm motors are indicated where quiet operation is necessary and where low static pressure is satisfactory. It is advisable to consult the Torit factory before ordering 1725 rpm units, to determine their suitability for the requirements and to eliminate the danger of an unsatisfactory installation.

**25 Cycle Frequency Motors**—Torit Nos. 54-A, 64-A and 81-A dust collectors have motors rated 1425 rpm. These have greater horsepower than the standard Nos. 54, 64 and 81 in order to propel the extra load of the fan shafting assembly while maintaining the operating characteristics of the standard 3450 rpm motors.

### CYCLONE SEPARATOR APPLICATIONS

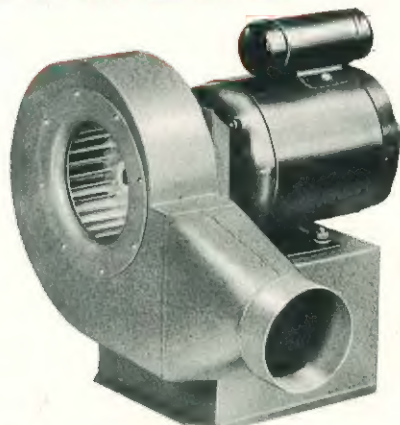
On applications where there is a possibility that filters in the cabinet type units would be overloaded, or clog from sticky buffing lint, the use of a cyclone separator instead of a cloth filtering unit is advisable. Also cyclone separators are recommended for applications involving large volumes of dust, as in connection with woodworking machinery. The performance characteristics of this type afford unusually high collection efficiency for both coarse and fine particles. This type separator is widely adaptable to many conditions since one model recirculates the air indoors, the other exhausts it outdoors. Motors are rated 3450 rpm. See pages 8-11 for further applications.

## EXHAUSTERS



For removing fumes, odors, gases, etc., as from welding, soldering, metallizing and galvanizing.

## BLOWERS



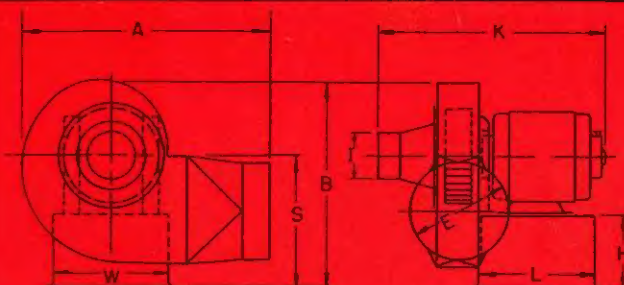
These Torit Blowers are designed for use in drying, cooling, or supplying a circulation of air.

### INLET SPECIFICATIONS

Torit Cabinet Type Dust Collectors are so designed that inlets (to which piping is connected) may be placed on either side panel at the rear, on the top panel at the rear, or anywhere on the back panel. Inlets in cyclone type may also be varied to suit the condition. The tables on pages 6 and 7 show maximum permissible inlet areas for each cabinet unit. The operating characteristics quoted are net, at the inlet with new filters. All suction losses due to resistance to air movement inside the cabinet (or cyclone) are accounted for. Study the installation in mind and specify on your order inlet locations that will afford most convenient piping connections from your grinder or other dust source.



**NOTE:** For handling fumes only. Squirrel-cage blower wheels in these units are not suitable for handling dust-laden air, (except as used in Torit dust collectors, where they are on the clean side of the filter or cyclone). For standard equipment and construction, see Torit Blowers below.



9  
To

### SPECIFICATIONS

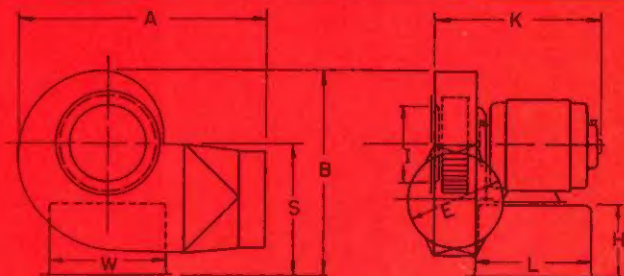
Unit No.	Motor		Size Intake	Size Outlet	Intake S.P.	Cap. C.f.m.	Intake Air Vel. F.p.m.
	H.p.	R.p.m.					
304	1/4	1725	4"	6"	2"	350	4000
306	1/2	3450	3"	4"	4 1/4"	340	7000
308	1/2	1725	6"	8"	1.5"	685	3500
312	1/2	3450	3"	6"	5.5"	350	7150
318	1	1725	8"	10"	2"	1750	5000
320	1	3450	4"	6"	6"	675	7750
338	3	1725	10"	12"	2.2"	2600	4770
340	3	3450	6"	8"	4.4"	1300	6600
346	5	1725	12"	12"	2"	4000	5100
348	5	3450	7"	8"	7.5"	2700	10000

### DIMENSIONS IN INCHES

Unit No.	A	B	E	S	Base No.	W	L	H	I	K	Fan Size
			O. D.						I. D.		
304	20 1/4	15 1/4	6	9 1/2	312	8	8	6	4	16 1/4	7-11/16
306	17-1/16	14 1/4	4	9 1/2	312	8	8	6	3	16 1/4	6 1/4 x 2
308	21 1/2	17 1/4	8	10 1/2	320	10	10	6	6	19	9-3/16 x 2
312	17-7/16	14 1/4	6	9 1/2	312	8	8	6	3	16 1/4	7 x 1 1/2
318	25 1/4	19 1/4	10	12	318	11	11	7	8	19 1/4	9-15/16
320	20-9/16	16 1/4	6	10 1/2	320	10	10	6	4	18 1/4	8 1/2 x 1 1/2
338	29 1/4	23 1/4	12	14 1/2	338	12	14	9	10	21 1/4	12-3/16 x 2
340	21 1/4	21 1/4	8	14 1/2	338	12	14	9	6	21 1/4	9-3/16
346	29 1/4	24 1/4	12	15 1/4	346	14	16	9	12	28 1/4	12-3/16 x 2
348	21 1/4	21 1/4	8	14 1/2	338	12	14	9	7	21 1/4	9-3/16

**Standard Equipment**—Consists of motor, fan and housing mounted on a base with switch.

**Construction**—Housings are made of sheet metal supported on a sheet steel base. Fans are squirrel-cage type. Air intake is on side (in center) of housing. Exhaust may be had in any position specified.



### SPECIFICATIONS

Unit No.	Motor		Size Outlet	0" Air Del. S. P.	0" S. P. Free Air Cfm.	Outlet Air Vel. Fpm.
	Hp.	Rpm.				
104	1/4	1725	6"	1.4"	560	2850
108	1/2	1725	6"	1.5"	880	4500
112	1/2	3450	4"	3.75"	565	6500
118	1	1725	8"	2"	1275	3650
120	1	3450	5"	5"	850	6300
132	1 1/2	3450	6"	5"	1150	5900
138	3	1725	12"	4.90"	2200	4000
146	5	1725	12"	4.25"	4000	5100

### DIMENSIONS IN INCHES

Unit No.	A	B	E	S	Base No.	W	L	H	I	K	Fan Size
			O. D.								
104	20 1/4	14 1/4	6	9 1/2	312	8	8	6	6	12 1/4	7-11/16 x 2
108	21-9/16	16 1/4	6	10 1/2	320	10	10	6	6 1/4	15 1/4	8 1/2 x 3
112	17-1/16	14 1/4	4	9 1/2	312	8	8	6	4 1/4	12 1/4	6 1/4 x 2
118	21 1/4	18 1/4	8	11	320	10	10	6	7 1/4	18 1/4	9-3/16 x 4
120	18 1/4	15 1/4	5	10 1/2	320	10	10	6	5 1/4	15 1/4	7 x 2
132	18 1/4	16 1/4	6	11	320	10	10	6	5 1/4	15 1/4	7 x 2 1/2
138	29 1/4	23 1/4	12	14 1/2	338	12	14	9	10 1/2	18 1/4	12-3/16 x 3
146	29 1/4	24 1/4	12	15 1/4	346	14	16	9	10 1/2	23	12-3/16

## FILTER CLOTH

Cabinet type units have finely woven, chemically treated, spark resistant cotton cloth filters. FB cyclone separators have woven wool after-filters. Special filters are available for both styles.

## PIPING

Small-diameter piping will increase air velocity and static pressure, but will reduce air volume. When two or more wheels are suctioned through pipes branching off a "header" pipe, the diameter areas of the branch pipes should not exceed that of the header. Sharp elbows should be avoided—each one reduces suction about 15%.

### PIPE SELECTION TABLE

Diam. Inches	Area		Circumference		
	Square Inches	Square Feet	Inches	Feet and Decimals	Feet and Inches
1	.785	.0054	3.1416	.2618	0 3/4
2	3.14	.0218	6.28	.5236	0 6/4
3	7.07	.0491	9.42	.7854	0 9-7/16
4	12.57	.0873	12.57	1.047	1 0-9/16
5	19.63	.1364	15.71	1.309	1 3-11/16
6	28.27	.1964	18.85	1.571	1 6/4
7	38.48	.2673	21.99	1.833	1 10
8	50.27	.3491	25.13	2.094	2 1 1/4
9	63.62	.4418	28.27	2.356	2 4 1/4
10	78.54	.5454	31.42	2.618	2 7-7/16
11	95.03	.6600	34.56	2.880	2 10-9/16
12	113.1	.7854	37.70	3.142	3 1 1/4
13	132.7	.9218	40.84	3.403	3 4 1/4
14	153.9	1.069	43.98	3.665	3 8
15	176.7	1.227	47.12	3.927	3 11 1/4
16	201.0	1.396	50.26	4.189	4 2 1/4
17	226.9	1.576	53.41	4.451	4 5 1/4
18	254.4	1.767	56.55	4.712	4 8 1/4
19	283.5	1.969	59.69	4.974	4 11 1/4
20	314.1	2.182	62.83	5.236	5 2 1/4



# TORIT DISTRICT REPRESENTATIVES



## UNITED STATES

1. ARIZONA, Phoenix; 410 S. 1st St. Thunderbird Sales Corp.—Phone 4-8876
2. ALABAMA (See Florida)
3. ARKANSAS (See Texas)
4. CALIFORNIA, Los Angeles 13; 406 S. Main St. Lee Updegraff—Mutual 5722
5. CALIFORNIA, Daly City; 247 Irvington St. George F. Howe—Juniper 7-5315
6. COLORADO, Denver 16; 5460 Colorado Blvd. Union Supply Co.—Alpine 5-2091
7. CONNECTICUT—Eastern (See Massachusetts)
8. CONNECTICUT—Western (See New York City)
9. DELAWARE (See Philadelphia, Pa.)
10. DISTRICT OF COLUMBIA, Washington 5; Mrs. M. V. Olmert c/o Mrs. Paul Campbell Timberville, Virginia—Timberville 3-5981
11. FLORIDA, Orlando; P. O. Box 1219 E. E. McCarthy—Phone 3-1409
12. GEORGIA (See Florida)
13. ILLINOIS—Northeastern—Chicago 20; 1559 W. 83rd St., E. A. Davenport—Beverly 8-5144
14. ILLINOIS—Northwestern—Loves Park; P. O. Box 7—Industrial Engineering Sales Agency—Phone 7-6727
15. ILLINOIS—Southern Part—(See St. Louis, Mo.)
16. INDIANA—Northern Part (See Chicago, Ill.)
17. Other areas—Indianapolis 18, 2809 Brookside Ave. Byron Confer—Melrose 8-5240
18. IOWA—Eastern Half (See Rockford, Ill.)
19. IOWA—Western Half (See Nebraska)
20. KANSAS (See Kansas City, Mo.)
21. KENTUCKY, Louisville (See Dayton, Ohio)
22. LOUISIANA (See Texas)
23. MARYLAND, Baltimore 19; 33 E. 21 St. Taze & Hewitt—Belmont 5-5895
24. MAINE (See Massachusetts)
25. MASSACHUSETTS, Cambridge 42; 31 Main St. Wolverine Equipment Co.—Kirkland 7-4425
26. MICHIGAN, Detroit 38; 10600 Puritan Dymont and Girk, Assoc.—University 2-9188
27. MINNESOTA, Minneapolis 4; 416 S. 10th St. A. C. Nydegger—Federal 3-5605
28. MISSOURI, Kansas City 6; 2110 Main St. F. H. Holtkamp—Jefferson 5570
29. MISSOURI, St. Louis 10, 2151 Lawrence St. F. H. Holtkamp—Prospect 1-3596
30. NEBRASKA, Minneapolis 6, Minnesota; 2431 East Franklin Avenue Milton Granquist—Fillmore 8678
31. NEW JERSEY—Northern (See New York City)
32. Southern (See Philadelphia, Pa.)
33. NEW MEXICO (See Arizona)
34. NEW YORK, New York 23; 17 W. 60th St. Arnold G. Landres—Columbus 5-3493
35. NEW YORK, Rochester 7; 36 Winthrop St. A. A. Pennington—Baker 9818
36. NEW YORK, Troy; Stow Ave. C. H. Crockett—Ashley 6-8791
37. NORTH CAROLINA (See Florida)
38. NORTH DAKOTA (See Minnesota)
39. OHIO, Cleveland 17; 21000 St. Clair Ave. Garco Machinery, Inc.—Kenmore 1-9120
40. OHIO, Dayton 9; Fletcher Bldg. 53 Park Ave. Paul W. Kronauge—Oxmore 5694
41. OHIO, Northwestern (See Michigan)
42. OHIO, Southeastern (See Pittsburgh, Pa.)
43. OKLAHOMA (See Texas)
44. OREGON (See Washington)
45. PENNSYLVANIA, Philadelphia 44; 18 W. Chelton Ave. Kellogg Appliance Co.—Germantown 8-2171
46. PENNSYLVANIA, Pittsburgh 20, 515 S. Main St. Voss Machinery Co.—Walnut 2-1900
47. RHODE ISLAND (See Massachusetts)
48. SOUTH CAROLINA (See Nebraska)
49. SOUTH DAKOTA (See Nebraska)
50. TENNESSEE (See Florida)
51. TEXAS, Dallas; 3018 Commerce St. R. V. Miles—Prospect 0595
52. VERMONT (See Massachusetts)
53. VIRGINIA (See District of Columbia)
54. WASHINGTON, Seattle 15, 401 E. 92nd St. Frank K. Donnelly—Vermont 8894
55. WEST VIRGINIA (See Pittsburgh, Pa.)
56. WISCONSIN, Milwaukee 2; 225 E. Detroit St. Merit Machine Tools Co.—Marquette 8-2768
57. WISCONSIN, Western Part (See Minneapolis 3, Minn.)

## CANADA

27. BRITISH COLUMBIA, Vancouver 10; 224 W. 5th Ave. General Equipment Limited—Emerald 8881
28. ONTARIO, Toronto; 197 College St. D. M. Duncan Machinery Co.—Midway 9361
29. ONTARIO, Windsor; 1958 Wyandotte St., E. D. M. Duncan Machinery Co.—Tel. 3-1132
30. QUEBEC, Montreal; 5945 McLynn Ave. D. M. Duncan Machinery Co.—Atlantic 6721

## PHILIPPINES

MANILA, Phidco Bldg., 134 Padre Faura, Ermita Safety Equipment and Supply Co., S. F. Neri

## MEXICO

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